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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/534,412

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Shigeo Yukawa

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01/07/2009

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EXAMINER

CHEVALIER, ALICIA ANN

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

01/07/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/534,412

Applicant(s)

YUKAWA ET AL.

Examiner

ALICIA CHEVALIER

Art Unit

1794

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10/8/08.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) 1-15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

RESPONSE TO AMENDMENT

1. Claims 1-15 are pending in the application, claims 11-15 are withdrawn from consideration.

REJECTIONS

2. **The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.**

Claim Rejections - 35 USC § 102

3. Claims 1-4, 6 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Tolliver et al. (U.S. Patent No. 5,069,964).

Tolliver discloses a retroreflective sheet (*title*), comprising: plural retroreflective elements (*col. 4, lines 62*); a resin support sheet (*binder layer, col. 4, line 53*); a transparent cover film (*face member, col. 10, lines 12-14*) disposed on a surface side of the resin support sheet; and a pressure-sensitive adhesive layer (*intermediate adhesive, col. 8, lines 27-31*) formed on a rear face side of the resin support sheet, wherein the retroreflective elements are held in at least one of the resin support sheet and the cover film, the resin support sheet and the cover film are connected to each other by heat press emboss forming from the rear face side of the resin support sheet so as to form a connection part, a groove of the connection part is formed on the rear face side of the resin support sheet, the groove is filled with a part of the pressure-sensitive adhesive

layer (*figures 1 and 2*). The pressure sensitive adhesive layer is formed of a rubber-based resin or an acrylic resin (*col. 10, lines 39-60*).

Tolliver does not explicitly disclose the residual rate or the fall time of the pressure sensitive adhesive as claimed in claims 1-4. However, these properties would be inherent since Tolliver uses the same claimed pressure sensitive adhesive, e.g. a rubber-based resin or an acrylic resin (*col. 10, lines 39-60*).

The retroreflective element is a transparent bead of which a hemisphere part is covered with a reflective mirror, and is supported so that the hemisphere part of the transparent bead covered with the reflective mirror may be embedded in the resin support sheet (*reflectors, col. 4, lines 65-66 and figures 1 and 2*).

Claim Rejections - 35 USC § 103

4. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tolliver et al. (U.S. Patent No. 5,069,964).

Tolliver is relied upon as described above.

Tolliver fails to disclose wherein a thickness of the pressure-sensitive adhesive layer at a part where the groove is not formed on the rear face side of the resin support sheet ranges between 20 μm and 110 μm inclusive.

Therefore, the exact thickness of the adhesive is deemed to be a result effective variable with regard to the bonding strength to target. It would require routine experimentation to determine the optimum value of a result effective variable, such as thickness, in the absence of a

showing of criticality in the claimed thickness. *In re Boesch*, 205 USPQ 215 (CCPA 1980), *In re Woodruff*, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990).

5. Claims 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tolliver et al. (U.S. Patent No. 5,069,964) in view of Ojeda et al. (U.S. Patent No. 6,326,072).

Tolliver is relied upon as described above. Tolliver further discloses using a removable protective liner over the adhesive during handling (*col. 5, lines 9-10*) that is laminated on the pressure sensitive adhesive layer (*figure 2*).

Tolliver fails to disclose the protective liner is resin release film made of an unstretched polypropylene film or a low-density polyethylene film.

Ojeda teaches in the background information that various materials are known to be used to manufacture release liners such as unstretched polypropylene (*col. 1, lines 37-47*). Ojeda also discloses that release liners are used in transportation and storage of self-sticking products (*col. 1, lines 19-23*).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use a known material such as unstretched polypropylene film as taught by Ojeda as the release liner in Tolliver.

The combination of Tolliver and Ojeda do not explicitly disclose the young's modulus or the release film as claimed in claim 9. However, these properties would be inherent since the combination of Tolliver and Ojeda uses the same claimed release film, e.g. unstretched polypropylene film.

ANSWERS TO APPLICANT'S ARGUMENTS

6. Applicant's arguments in response filed October 8, 2008 regarding the 35 U.S.C. 102(b) rejection over Tolliver et al. (U.S. Patent No. 5,069,964) of record have been carefully considered but are deemed unpersuasive.

Applicant argues that the Examiner is incorrectly asserting that the material the cited reference would inherently exhibit the claimed functional limitations, i.e. residual rate or fall time of the pressure sensitive adhesive. Applicant further argues that the residual rate and the fall time of the pressure-sensitive adhesive layer can be adjusted by forming the pressure-sensitive adhesive layer by, for example, appropriately setting kinds and contents of a resin and a hardening agent as materials of the pressure-sensitive adhesive layer. Applicant also argues that the examples and comparative examples show different residual rate and fall times for rubber-based resins and acrylic resins.

As defined in the MPEP, "[a] functional limitation is an attempt to define something by what it does, rather than by what it is (e.g., as evidenced by its specific structure or specific ingredients). However, the examiner notes that "where the Patent Office has reason to believe that a functional limitation asserted to be critical for establishing novelty in the claimed subject matter may, in fact, be an *inherent characteristic of the prior art*, it possesses the authority to require the applicant to prove that the subject matter shown to be in the prior art does not possess the characteristics relied on" (emphasis added) - MPEP § 2183. In the instant case, the claimed limitation(s) residual rate and fall time of the pressure sensitive adhesive functional limitations and are deemed to be an inherent characteristic of the prior art since the prior art is substantially identical in composition and/or structure. The examiner's sound basis for this assertion is the

pressure sensitive adhesive layer is formed of a rubber-based resin or an acrylic resin, such as acrylonitrile (*col. 10, lines 39-60*). Applicant's specification on page 8, lines 14-25 recites "The pressure-sensitive adhesive layer of the present invention is preferably formed of a resin such as an acrylic resin and a rubber-based resin. Examples of the rubber-based resin include nitrile rubber." On page 10, line 30 Applicant specifies acrylonitrile as the composition for the pressure sensitive adhesive. Furthermore, it is noted that Applicant's specification on pages 8-11 lists numerous compositions useful for the pressure sensitive adhesive. Furthermore Applicant's specification on page 11, lines 23-25 states "a thickening agent, a wet agent, a leveling agent, an antifoaming agent or the like *may be added* to the resin for forming the pressure-sensitive adhesive layer, as appropriate." Therefore, the addition of these added materials is optional. Applicant's comparative examples do not include the adhesive composition disclosed by Tolliver. Applicant must show evidence that Tolliver does not inherently have the claimed residual rate and fall time of the pressure sensitive adhesive. Therefore, since Tolliver discloses the same composition for the pressure sensitive adhesive the claimed residual rate and fall time of the pressure sensitive adhesive would be inherent.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia Chevalier whose telephone number is (571) 272-1490. The examiner can normally be reached on Monday through Friday from 8:00 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye, can be reached on (571) 272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).